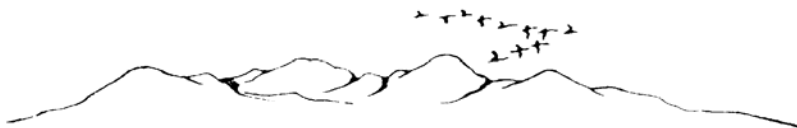


# CITY of YUBA CITY



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WASTEWATER TREATMENT FACILITY • 302 BURNS DR • YUBA CITY, CA 95991 • (530) 822-4639 FAX (530) 822-4773

October 1, 2007

Mrs. Diana Messina  
Water Resource Control Engineer  
California Regional Water Quality Control Board  
Central Valley Region  
11020 Sun Center Drive #200  
Rancho Cordova, CA 95670

**SUBJECT:** Comments on Tentative Order National Pollution Discharge Elimination System (NPDES) Permit No. CA0079260 – Waste Discharge Requirements for the City of Yuba City Wastewater Treatment Facility, Sutter County.

Dear Mrs. Messina:

City of Yuba City (City) staff wishes to extend our thanks to you and other Regional Board staff for meeting with us through the permit development process to discuss policy and technical issues. We have organized comments on the Tentative Order (Order) into specific comments where we discuss issues to be resolved, and editorial comments which are generally minor corrections. We have also provided an electronic version of the Order with track-changes edits to reflect our comments.

## **Specific Comments**

**Reopeners** – The future compliance of aluminum, lead, and diazinon are dependant on future studies and subsequent reopeners to the permit for effluent limit modifications. The City would like to attempt eliminating the need for future reopeners at the present time, however would prefer the permit to go to the Board during the October meeting. The reopener for diazinon is dependent on USEPA approval of the 2007 Basin Plan Amendment, which is anticipated in the second half of 2008. We understand that until there is approval by the USEPA, the current diazinon TMDL applies and no changes to the Order are appropriate. However, for aluminum and lead, the information at hand can be reevaluated to remove the need for reopeners as follows:

## **Aluminum**

For aluminum, the USEPA chronic objective (87 µg/L) is the most stringent objective and effectively controls the effluent limitations calculation, however the chronic objective is relatively controversial. USEPA acknowledges that many high quality waters exhibit water column concentrations exceeding the 87 µg/L level and development of a water effects ratio (WER) is encouraged. The City has begun the process of developing a WER for aluminum in the Feather River and the Phase I tests result in no observable effect at a concentration of 8,000 µg/L, two orders of magnitude greater than the USEPA National Criterion. For the Phase I study, the

WER calculation is truncated because there were no observable effects at the tested levels of aluminum, however a conservative calculation estimates the WER greater than 50. The next most stringent objective is the secondary MCL of 200 µg/L, so that if the chronic WER was greater than 2.3, the chronic objective will be greater than 200 µg/L. It is reasonable to conclude that if the Phase II WER is completed, the resulting WER would yield a chronic objective considerably greater than 200 µg/L. Performing the Phase II would represent a considerable expense on City staff time and monitoring requirements, and will result in additional resources by the Regional Board staff to evaluate the Phase II results and reopen the Order. We believe there is sufficient empirical evidence at hand to justify removing the published USEPA national chronic objective from consideration in developing aluminum effluent limitations for the City in the Order.

In the case of aluminum aquatic life objectives, the RWQCB has the discretion to use best professional judgment to determine that recommended criteria are not applicable based on results of the preliminary studies; just as the Board used its best professional judgment to apply the criteria through the narrative objective. Aluminum is not a priority pollutant and is not included in the California Toxics Rule ("CTR"). Also, a numeric aquatic life-based water quality objective for aluminum is not included in the Central Valley Basin Plan. If the RWQCB determines that a full WER must be completed, at an estimated cost of \$50,000 to \$100,000 wording should be added to the TO Section VI.C.7.a.i. and Fact Sheet Section IV.C.3.g that clarifies the compliance schedule to reflect the City's planned approach. Based on the Phase I results, the City anticipates that the permit would be reopened to adjust the aluminum limits.

## **2,3,7,8-TCDD and Furan Congeners**

The City requests that the 2,3,7,8-TCDD and Furan Congeners samples be collected through grab sampling instead of 24-hr composite due to ease of sample contamination. Project managers from a certified commercial dioxin testing laboratory have indicated that phthalate and/or plastic containing equipment can lead to contamination of samples. EPA method 1613 section 6.1.2. for composites confirms the ease of contamination as follows:

6.1.2 Compositing equipment—Automatic or manual compositing system incorporating glass containers cleaned per bottle cleaning procedure above. Only glass or fluoropolymer tubing shall be used. If the sampler uses a peristaltic pump, a minimum length of compressible silicone rubber tubing may be used in the pump only. Before use, the tubing shall be thoroughly rinsed with methanol, followed by repeated rinsing with reagent water to minimize sample contamination. An integrating flow meter is used to collect proportional composite samples.

Although it is the discharger's responsibility to ensure that samples are collected in a manner to gather data of high quality, most dischargers are unaware of the special requirements to properly sample for 2,3,7,8-TCDD and Furan Congeners at parts per quadrillion method detection limits. This detection range is a thousand times lower than that of mercury in which sources of sample contamination are well known (See EPA method 1669 section 4.0). In the September 10, 2001 Requirement to Submit Monitoring Data Letter (CTR) from the Regional Board, Attachment I directs dioxin to be sampled by either grab or composite. Attachment II lists the suggested method for dioxin as EPA method 8290. Method 8290 describes sampling procedures in section 6.2.2. but is vague and does not go into the detail that EPA method 1613 does. It should also be noted that analytical limits of Method 8290 does not meet the minimum CTR concentration criterion while Method 1613 does.

Due to the fact the Regional Board has acknowledged sample contamination issues with Bis (2-ethylhexyl) phthalate and that 2,3,7,8-TCDD and Furan Congeners samples can be contaminated by phthalate containing items and atmospheric deposition, it stands to reason that historical dioxin data obtained through the CTR program and NPDES monitoring has a high probability of being in error (See EPA method 1669, section 4.1).

To obtain 2,3,7,8-TCDD and Furan Congeners data of high quality, the samples should be collected as a grab to minimize the potential for sample contamination. If compositing is absolutely necessary, it should be done by collecting three grabs throughout the day. The discrete grab samples would then be delivered to the dioxin laboratory for proper compositing and analysis in a clean room environment, as compositing in an open air environment is in itself a source of contamination.

It is requested that Tables E-3 and E-4 TCDD-Equivalents sampling type be changed to grab.

## **Lead**

The detection levels utilized in lead analyses conducted prior to June 2006 were generally too high to allow full characterization of the effluent lead concentration distribution. Furthermore, prior to June 2006, dissolved lead levels were not measured in either the effluent or in the Feather River. Because of insufficient input data, the City was unable to perform dynamic modeling to evaluate lead effluent limitations. Currently, lead effluent limitations in the Order are calculated using the SIP Steady State method and available total lead data. The calculated effluent limitations are sufficiently low that the City will not be able to immediately comply with the calculated effluent limitations and a time schedule for compliance with interim lead limitations are included as part of the Order. The City intends to perform dynamic modeling to recalculate the lead limitations for the effluent and will be requesting the permit to be reopened in the future to modify the sections of the Order pertaining to lead. Acknowledging the data limitations, the City has been collecting low-level total and dissolved lead data for both the effluent and Feather River. All available lead data are attached.

The City is well aware of the SWRCB decision related to criticism for continued and untimely data submissions. When the City submitted the ROWD on July 18, 2006 it appeared that there was sufficient assimilative capacity within the Feather River to result in lead effluent limitations that could be immediately achieved. During the preparation of the Order the data set was reevaluated and determined to not be sufficient to eliminate Feather River data that was collected during high river flows – 58,500 cfs and 109,000 cfs. When the ROWD was submitted the City also utilized a hardness of 39 mg/L compared to the Order hardness of 32 mg/L. The City initiated increased monitoring of the Feather River for total and dissolved lead. An additional thirty one sampling events have taken place at Feather River flows ranging from 2,600 cfs to 9,900 cfs. The highest ambient total lead has been 0.37 µg/l while every dissolved lead sample has been non-detect at a MDL of 0.05 to 0.1 µg/L. The current lead data set is attached. The City will continue to monitor the Feather River lead concentrations at the low detection levels. This data and near future data will be utilized to calculate an effluent limit through dynamic modeling. Based the City's dynamic model utilizing the dissolved lead data to date for the Feather River and total lead in the effluent, the resulting AMEL and MDEL are 16.1 µg/L and 24.5 µg/L, respectively. While additional data collection may result in modest changes to the calculated effluent limitations, the levels are unlikely to change significantly. If these limits were to be adopted historical wastewater facility performance does not indicate a compliance issue.

**Interim Limitation Dates** – Interim effluent limitations for non-CTR constituents should remain through the effective term of the Order. For both Discharge 001 and 002, the interim limits for aluminum and iron should be moved from section IV.A.3.a, limiting effectiveness to May 2010, of the Interim Effluent Limitations to section IV.A.3.c for the effective term of the permit. Modification is also required in Section VI.C.7.a.i to remove aluminum and iron from the 18 May 2010 date and adding to the sentence providing the effective term of the permit.

**Bis (2-ethylhexyl) phthalate** – The City requests the permit limits for Bis-2 to be included at this time. Add appropriate calculations and limits. Suggested language has been added to the Fact Sheet Section IV.C.3.i and wording related to monitoring is suggested for removal. It is also suggested that Table F-10 be added and Table F28 and F29 summary tables and other applicable tables be modified to include Bis (2-ethylhexyl) phthalate.

### **Editorial Comments**

Section I, Table 4. Facility Design Flow, add “average dry weather flow”

Section IV, A.1.j, A.2.j, B.1.i, B.2.i: Change mercury limit to, “For a calendar year, the annual average total recoverable mercury loading in the effluent shall not exceed 0.672 lbs/year.”

Section IV, 4.A., 4.B. Tables 6,7,11,12 add language to Footnote 1, “Compliance with the mass effluent limitations will be determined during average dry weather periods only when groundwater is at or near normal and runoff is not occurring” as per Section VII.G of this Order.

Section IV, C.7. Add the language, “of pond system.”

Section VI.A.2. Change in biosolids use or disposal. Change “...Dischargers’ biosolids or...” to “...Discharges’ biosolids use or...”.

Section VI.A.2p: Add language, “unless identified as another location in Attachment E – Monitoring and Reporting Program.”

Section VI.A.2q: Add language, “unless the instrument can not be calibrated, such as in line magnetic flow meters.”

Section VI.A.2v: Add language, “unless directed to call another number”

Section VI.C.1.g. Diazinon, the values 0.10 and 0.16 are transposed. The 0.16 µg/L should correspond to the future 1-hour average and 0.10 µg/L should correspond to the future 4-day average. The same change is required in the Fact Sheet Section VII.B.1.e

Section VI.C.2.iii. Numeric Monitoring Trigger: For consistency with effluent limitations, modify: “..monitoring trigger of > 12 TUc...” and supplement with; “Effective after State Water Board Adoption of the Lower Yuba River Accord a numeric toxicity monitoring trigger of > 17 TUc..”

Section VI.C.3.d: Change title from “2,3,7,8-TCCD Congeners” to “2,3,7,8-TCDD and other CDD and CDF Congeners” or “Dioxin and Furan Congeners”. The same change is required in the Fact Sheet (ca. F-94).

Attachment D:

Section I.A.2. replace “sewage sludge” with “biosolids”

Section I.C: replace “sludge” with “biosolids”.

Section III.B: replace “sludge” with “biosolids”.

Section IV.A. replace “sewage sludge” with “biosolids”.

Section V.C.2 and 3: replace “sludge” with “biosolids”.

Section V.F.3: replace “sludge” with “biosolids”.

Attachment E:

Table E-1: Changed Groundwater monitoring location tag to G-001...for all wells to match monitoring locations in section VII.

Table -2: Change from “...shall collected...” to “...shall be collected...”.

Tables E-3 and E-4, because composite sample for dioxin and furan congeners may be easily contaminated by contact with any pump tubing used in a compositor, the sample type should be changed from “24-hr Composite” to “Grab”.

Tables E-3 and E-4: Changed Effluent Ammonia Nitrogen sample from “Grab” to “24-hr Composite” for consistency with Influent Ammonia Nitrogen sample. Tables E-3 and E-4: Add to footnote 4 “listed in Section 3 of the SIP “ after “...dioxin congeners” to provide clarification of which congeners.

Table E-6: add the language, “of pond system.”

Table E-7: remove footnote 7 and add “Grab” in Table E-7 for Priority Pollutants.

Table E-8: Footnote 1 – Add at the end of the footnote “Gradient and gradient direction are not required to be reported until completion of the groundwater Study.”

Table E-8: Footnote 4 add language, “for more than one day per month.”

Table E-11: replace “2,3,7,8-TCCD” with “2,3,7,8-TCDD” or “Dioxin and Furan Congeners”.

Table E-11: in Groundwater Monitoring Technical Report, replace “DATE” with “Within 15 months after permit adoption. The same change is required in Fact Sheet.

Attachment F:

Table F-2: for Electrical Conductivity the 1,000 µmhos/cm corresponds to a max day.

Section II.A: remove “d” from mgd in relation to total volume of disposal ponds.

Section III.C.2 second to last sentence, change “Discharge” to “Discharger”.

Section III.D.2. Add the sentence, “This permit contains a reopener to allow reevaluation of diazinon effluent limitations once USEPA approval of the Basin Plan amendment.” to the end of the section.

Section IV.C.3.x. In the first paragraph, after “...agricultural irrigation” add “of livestock feed crops”.

Section IV.C.3.cc.ii the receiving water EC average is 90 µmhos/cm between 2 Jan 1998 and 28 June 2006, not the 120 µmhos/cm listed in the order.

Section IV.C.3.ff in the second paragraph remove the 2,3,7,8 from CDD and CDF as the 2,3,7,8, implies four chloride atoms and the congeners may have up to eight chlorides.

Section VII.B.2.a: For consistency with effluent limitations, modify the Monitoring Trigger to begin with: “Effective until State Water Board Adoption of the Lower Yuba River Accord a numeric toxicity monitoring trigger of > 12 TUC...” and supplement the paragraph with; “Effective after State Water Board Adoption of the Lower Yuba River Accord a numeric toxicity monitoring trigger of > 17 TUC, based on the corresponding dilution factor of 17. Therefore a TRE is triggered when the effluent exhibits a pattern of toxicity at 5.9 percent effluent.”

Section VII.B.2.c: Remove first "DATE" and replace with "...within 15 months of permit adoption..." Replace second "DATE" with "...within 12 months of submitting groundwater monitoring report..."

Section VII.B.3.d: Replace "2,3,7,8-TCCD" with "2,3,7,8-TCDD" or "Dioxin and Furan Congeners" in two locations.

Section VIII.A: Notification of the public was through posting at Yuba City City Hall public notice board, posting at the Wastewater Facility and publication in the Appeal Democrat.

Section VIII.B: Written comments are due by 12:00 p.m. (noon) on October 1, 2007.

To facilitate changes to the Order, the City is enclosing an electronic version of the Order which incorporates the City's comments as track-changes. Please, do not hesitate to contact me to discuss the comments in particular or the Order in general.

Sincerely,

Original Document Signed

William P. Lewis

Utilities Director

cc: Dave Carlson, CVRWQCB

Mitch Mysliwiec, LWA

**Yuba City Effluent Lead Data Regional Board  
Dataset.**

Date	Flag	Total Lead (µg/L)			Flag	Dissolved Lead (µg/L)		
		Value	MDL	RL		Value	MDL	RL
11/7/2003		ND	0.69	3.0		---	---	---
12/9/2003		ND	0.69	3.0		---	---	---
12/18/2003		ND	0.69	3.0		---	---	---
1/6/2004		ND	0.69	3.0		---	---	---
2/3/2004		ND	0.69	3.0		---	---	---
3/3/2004		ND	0.69	3.0		---	---	---
8/31/2004		ND	1.1	2.0		---	---	---
9/14/2004		ND	1.1	2.0		---	---	---
10/1/2004		ND	1.1	2.0		---	---	---
11/2/2004		ND	1.1	2.0		---	---	---
12/7/2004		ND	1.1	2.0		---	---	---
1/10/2005		ND	1.1	2.0		---	---	---
2/16/2005		ND	1.1	2.0		---	---	---
3/10/2005		ND	1.1	2.0		---	---	---
4/7/2005		ND	1.1	2.0		---	---	---
5/10/2005		ND	1.1	2.0		---	---	---
6/2/2005		ND	1.1	2.0		---	---	---
7/6/2005		ND	1.1	2.0		---	---	---
8/2/2005		ND	2.2	4.0		---	---	---
9/7/2005		ND	2.2	4.0		---	---	---
10/4/2005		ND	2.2	4.0		---	---	---
10/25/2005		ND	2.2	4.0		---	---	---
11/1/2005	J	3.3	2.2	4.0		---	---	---
12/8/2005		ND	2.2	4.0		---	---	---
1/25/2006		ND	2.2	4.0		---	---	---
2/22/2006		ND	2.2	4.0		---	---	---
3/15/2006		ND	2.2	4.0		---	---	---
4/20/2006		ND	2.2	4.0		---	---	---
5/11/2006		ND	2.2	4.0		---	---	---
6/7/2006		ND	2.2	4.0		---	---	---

**Yuba City Effluent Lead Data Low-Level Dataset.**

Date	Total Lead (µg/L)				Dissolved Lead (µg/L)			
	Flag	Value	MDL	RL	Flag	Value	MDL	RL
1/4/2007		ND	2.2	4.0		---	---	
2/6/2007		ND	2.2	4.0		---	---	
3/7/2007		ND	0.5	4.0		---	---	
4/4/2007		ND	0.5	4.0		---	---	
5/2/2007	J	0.82	0.5	4.0		---	---	
6/6/2007		ND	0.5	4.0		---	---	
7/10/2007		ND	0.5	4.0		---	---	
3/13/2007		0.32	0.1	0.25	J	0.20	0.1	0.25
3/20/2007		0.30	0.1	0.25	J	0.16	0.1	0.25
3/21/2007		0.38	0.1	0.25	J	0.19	0.1	0.25
3/22/2007		0.31	0.1	0.25	J	0.16	0.1	0.25
3/23/2007	J	0.24	0.1	0.25	J	0.19	0.1	0.25
3/26/2007		0.39	0.1	0.25	J	0.19	0.1	0.25
3/27/2007		0.33	0.1	0.25	J	0.15	0.1	0.25
3/28/2007		0.41	0.1	0.25		0.26	0.1	0.25
3/29/2007		0.34	0.1	0.25	J	0.18	0.1	0.25
3/30/2007		0.32	0.1	0.25	J	0.18	0.1	0.25



**Yuba City Feather River at R1 Lead Data Regional Board Dataset.**

Date	Total Lead (µg/L)				Dissolved Lead (µg/L)				Feather River
	Flag	Value	MDL	RL	Flag	Value	MDL	RL	(cfs)
11/17/2005	J	0.06	0.04	0.25		---	---	---	3,493
11/23/2005		ND	0.04	0.25		---	---	---	3,438
11/30/2005	J	0.14	0.04	0.25		---	---	---	3,484
12/6/2005	J	0.11	0.04	0.25		---	---	---	3,500
12/14/2005	J	0.11	0.04	0.25		---	---	---	3,611
12/19/2005		0.47	0.04	0.25		---	---	---	4,700
12/28/2005		1.0	0.07	0.25		---	---	---	58,500
1/3/2006		0.86	0.07	0.25		---	---	---	109,000
1/12/2006		0.71	0.07	0.25		---	---	---	18,000
1/19/2006		0.47	0.07	0.25		---	---	---	15,000

**Yuba City Feather River at R1 Lead Data Low-Level Dataset.**

Date	Total Lead (µg/L)				Dissolved Lead (µg/L)				Feather River (cfs)
	Flag	Value	MDL	RL	Flag	Value	MDL	RL	
3/13/2007	J	0.12	0.1	0.25		ND	0.1	0.25	4,356
3/20/2007		ND	0.1	0.25		ND	0.1	0.25	3,333
3/21/2007	J	0.18	0.1	0.25		ND	0.1	0.25	3,246
3/22/2007	J	0.14	0.1	0.25		ND	0.1	0.25	3,253
3/23/2007		ND	0.1	0.25		ND	0.1	0.25	3,256
3/26/2007		0.28	0.1	0.25		ND	0.1	0.25	3,265
3/27/2007	J	0.15	0.1	0.25		ND	0.1	0.25	3,273
3/28/2007	J	0.17	0.1	0.25		ND	0.1	0.25	3,634
3/29/2007	J	0.18	0.1	0.25		ND	0.1	0.25	4,499
3/30/2007	J	0.24	0.1	0.25		ND	0.1	0.25	4,503
4/3/2007	J	0.13	0.1	0.25		ND	0.1	0.25	5,522
4/10/2007		ND	0.1	0.25		ND	0.1	0.25	4,868
4/16/2007	J	0.12	0.1	0.25		ND	0.1	0.25	4,880
4/24/2007		ND	0.1	0.25		ND	0.1	0.25	3,532
5/3/2007		ND	0.1	0.25		ND	0.1	0.25	2,962
5/8/2007	J	0.11	0.1	0.25		ND	0.1	0.25	2,901
5/15/2007		ND	0.1	0.25		ND	0.1	0.25	2,956
5/22/2007	J	0.14	0.1	0.25		ND	0.1	0.25	2,942
5/31/2007	J	0.15	0.05	0.25		ND	0.05	0.25	2,894
6/13/2007	J	0.14	0.05	0.25		ND	0.05	0.25	2,595
6/19/2007		0.31	0.05	0.25		ND	0.05	0.25	5,152
6/26/2007	J	0.16	0.05	0.25		ND	0.05	0.25	5,046
7/3/2007		0.37	0.05	0.25		ND	0.05	0.25	9,938
7/11/2007	J	0.24	0.05	0.25		ND	0.05	0.25	6,912
7/17/2007	J	0.19	0.05	0.25		ND	0.05	0.25	6,648
7/25/2007		0.34	0.05	0.25		ND	0.05	0.25	5,969
8/1/2007	J	0.19	0.05	0.25		ND	0.05	0.25	5,855
8/7/2007	J	0.13	0.05	0.25		ND	0.05	0.25	5,980
8/15/2007	J	0.12	0.05	0.25		ND	0.05	0.25	6,613
8/21/2007	J	0.15	0.05	0.25		ND	0.05	0.25	6,620
8/29/2007	J	0.12	0.05	0.25		ND	0.05	0.25	5,947